

UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION	NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,888		07/17/2003	Robert Gurny	4-20437D	7666
1095	7590	11/04/2004	EXAMINER		INER
NOVAF CORPOR		TELLECTUAL PRO	KISHORE, GOLLAMUDI S		
ONE HEALTH PLAZA 430/2			ART UNIT	PAPER NUMBER	
EAST H.	EAST HANOVER, NJ 07936-1080			1615	
				DATE MAILED: 11/04/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/623,888	GURNY ET AL.				
Office Action Summary	Examiner	Art Unit				
	Gollamudi S Kishore, Ph.D	1615				
The MAILING DATE of this communicate Period for Reply	tion appears on the cover sheet with t	the correspondence address				
A SHORTENED STATUTORY PERIOD FOR THE MAILING DATE OF THIS COMMUNICA - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communic. - If the period for reply specified above is less than thirty (30) da - If NO period for reply is specified above, the maximum statutor - Failure to reply within the set or extended period for reply will, Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	TION. 7 CFR 1.136(a). In no event, however, may a reply ation. 19s, a reply within the statutory minimum of thirty (30 y period will apply and will expire SIX (6) MONTHS 19s statute. cause the application to become ABANT	be timely filed b) days will be considered timely. from the mailing date of this communication.				
Status						
1) Responsive to communication(s) filed or	n <u>02 July 2004</u> .					
l . _	☑ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4)⊠ Claim(s) <u>1-6,8 and 12-31</u> is/are pending	• •					
4a) Of the above claim(s) <u>27-31</u> is/are withdrawn from consideration. 5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-6,8 and 12-26</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction	and/or election requirement.					
Application Papers						
9)☐ The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a)	\square accepted or b) \square objected to by the	ne Examiner.				
Applicant may not request that any objection		` ,				
Replacement drawing sheet(s) including the						
11) The oath or declaration is objected to by the state of the state	the Examiner. Note the attached Off	ice Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for for a a) All b) Some * c) None of: 1. Certified copies of the priority documents. 		9(a)-(d) or (f).				
2. Certified copies of the priority docu		eation No				
3.☐ Copies of the certified copies of the						
application from the International E		The same promoting charge				
* See the attached detailed Office action for	a list of the certified copies not rece	ived.				
Attachment(s)						
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413)						
Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date.						
Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other:						

Art Unit: 1615

DETAILED ACTION

The amendment dated 7-2-2004 is acknowledged.

1. Newly submitted claims 27-31 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the originally presented claims are composition claims drawn to nanoparticles which are coated with polymers which are resistant to gastric juices and soluble in intestinal juices and process claims which make this product. The newly submitted claims are process claims wherein a hydrophilic polymer such as polyvinyl alcohol is used and the product produced by the specific process. Polyvinyl alcohol is a water-soluble polymer, which is attacked by both acids and bases. This means the composition is soluble in gastric juices and therefore, a new invention. (Condensed chemical dictionary (page 943) is cited of interest in this context.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 27-31 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims included in the prosecution are 1-6, 8, and 12-26.

Application/Control Number: 10/623,888 Page 3

Art Unit: 1615

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 2. Claims 1-3, 8, 12-15, 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawata et al (4,343,789).

Kawata et al disclose fine powders of active agents of low solubility coated with various copolymers of met acrylic acid and

met acrylic esters or hydroxypropylmethyl cellulose phthalates. The fine particles are mixed with additives and filled in capsules for oral delivery. The particles can be lyophilized. (Abstract, col. 2, lines 13-44, col. 5, lines 10-20, Examples and claims). Since the fine powders are pulverized for 16 hours in a vibrating ball mill, the burden is upon applicant to show that this process does not result in nanoparticles.

Claim Rejections - 35 USC § 103

- 3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 4. Claims 1-6, 8 and 12-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawata et al (4,343,789) or Stainmesse (5,133,908) of record by themselves or in combination.

Application/Control Number: 10/623,888

Art Unit: 1615

Kawata et al disclose fine powders of active agents of low solubility coated with various copolymers of met acrylic acid and

met acrylic esters or hydroxypropylmethyl cellulose phthalates. The fine particles are mixed with additives and filled in capsules for oral delivery. The particles can be lyophilized (abstract, col. 2, lines 13-44, col. 5, lines 10-20, Examples and claims).

Stainmesse as discussed in the previous action while disclosing nanoparticles of lipophilic active agents teaches that these nanoparticles can be coated with polymers such as aceto phthalate of polyvinyl, acetophthalate of cellulose (enteric polymers) among others. One of the methods of preparation involves mixing the polymer in an aqueous medium to the active agent in acetone. The particles can be lyophilized (note abstract, col. 2 line 63 through col. 3, line 3, Examples 9 and 15 in particular and claims). It would have been obvious to one of ordinary skill in the art to prepare the nanoparticles of water insoluble drugs and coat them enterically with the expectation of obtaining at least similar results based on the suggestion and guidance provided by Stainmesse.

What is lacking in Kawata et al is the specific teaching that the powders are of nanoparticles sizes. However, assuming that they are not of nano sizes, it would have been obvious to one of ordinary skill in the art to prepare particles of any sizes with the expectation of obtaining intestinal delivery since the site of delivery depends upon the enteric coating and does not depend upon the size of the particles. One of ordinary skill in the art would prepare particles of desired sizes depending upon the purpose for which they are used. One of ordinary skill in the motivated to further to prepare

Art Unit: 1615

nanoparticles since the reference of Stainmesse teaches that these particles are used for routine delivery of water insoluble drugs. Alternately it would have been obvious to one of ordinary skill in the art to coat the nanoparticles of Stainmesse with enteric polymers since such a coating would enable the active agents not to dissolve in the stomach but in the intestines as also taught by Kawata.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gollamudi S Kishore, Ph.D whose telephone number is (571) 272-0598. The examiner can normally be reached on 6:30 AM- 4 PM, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gollamudi S Kishore, Ph.D Primary Examiner

Art Unit 1615